Making the Most Your City's Data Portal

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Accessing the City's Data Portal

The City of South Bend's Open Data Portal can be found at <u>data.southbendin.gov</u>, or you can find it under <u>southbendin.gov</u>'s My Government tab and then under Online Tools. The City's Open Data Portal is powered by Socrata, and this guide is intended to show you how Socrata's data system works.

Finding Data in the Portal

South Bend's data portal has many resources readily available for you to access, and there are several ways to go about finding these resources. We've listed five ways to search for data on the portal and where they can be found below.

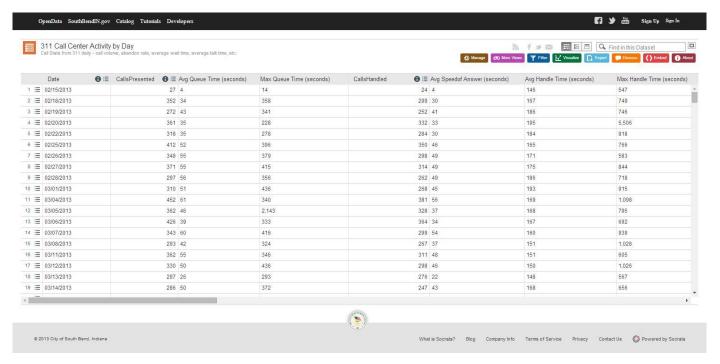




- 1. General sorting and time: Every resource on the portal keeps track of how many times it's been viewed in certain segments of time, by week, month, and year. You can sort by things such as recency, popularity, most comments, highest rated, and more.
- 2. Search: This search method works best when you have a good idea of the name of the resource you're looking for. Otherwise, you might end up spending a lot of time finding what you're looking for.
- 3. View Types: Every resource has a view type. View types include Datasets (think Excel spreadsheet), Charts, Maps, Calendars, Filtered Views, External Datasets, Files and Documents, Forms, and APIs. Searching by this method will let you see one kind of view type at a time and possibly help you narrow down your search.
- 4. Categories: This method displays resources on the basis of department or general function (i.e. Business). This method is best for seeing what kind of information the city has for general areas of interest. The example I've shown above displays 311 Center category resources.
- 5. Topics: This method of searching relies on tags given to resource. A resource can have any number of topics tied to it as long as they are relevant to the resource. A resource that keeps track of housing violations could have topics such as Code Enforcement and Code Violations, and possibly more.

Shaping Resource Data

Once you've picked a resource, you have quite a few options open to you as to how you want to handle the data you're using, such as filtering, visualizing, exporting, and more. For the following explanation of your options, I'll be using a Dataset, this one being 311 Call Center Activity by Day. Datasets are very malleable and are usually the foundation upon which other view types are built. Know that any view change you make can be reverted back to the original dataset; you'll see the Revert option near the name of the resource.







- Manage: This option lets you sort the order of the columns in a dataset as well as allow you
 to hide columns; this is useful if you're particularly interested in just a few columns in the
 dataset.
- More Views: This option lets you see views others have made with the resource you're working with. Since we're looking at a dataset, we a good amount of options available to us. In the example we have to the right, while we've only pasted two more views, there are several more charts and still some other view types that have been made



- from this dataset. With More Views, you can see every creation from this dataset.
- Filter: This option is fairly deep, but long story short, Filters let you sort out and/or group data however you see fit. We've given Filter its own walkthrough to adequately explain what this feature can do. See "Filter, Sort, Roll-Up, and Conditional Formatting" below.
- Visualize: This option lets you transform the numbers you're looking at into charts, calendars, or maps to better understand what the data has to say. Choose your preferred visualization, pick columns you want included, and you have your visualization.
- Export: If you want a copy of the resource you're viewing, Export will let you have it. Know that Socrata exports these files in a format that is most likely to be compatible with any given user; this means that, for a dataset like the 311 resource we're using, the file you'll get will be a 1997-2003 Excel file. This won't affect the data itself, but you will need to save the file again on your own machine as a more recent file type to use more recent features from Excel 2007 onward.

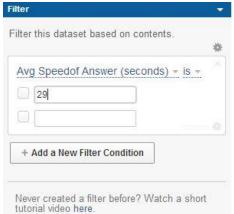


Filter, Sort, Roll-Up, and Conditional Formatting

The three options available to you under Filter are Filter, Sort and Roll-Up, and Conditional Formatting. These tools are great for narrowing down datasets and finding the information you care most about.

Filter

Filter is a very simple tool. All we have to do is choose as many or few columns as we like and decide what values we're looking for in those columns. If I wanted to view only records that had an average answer time of 29 seconds, I would fill that data and I'd get my view. I sould also also also appear to a like Is C restor. Then



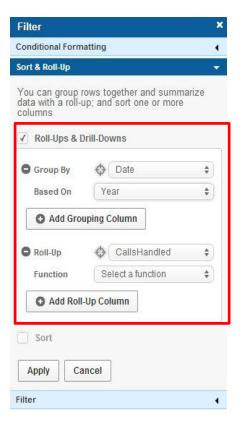
view. I could also choose operators like Is Greater Than, Is Less Than, and more rather than just Is (equal to).

Sort

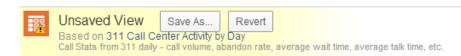
Sorting is also a very simple tool. Pick a column and choose what direction you want the data sorted.

Roll-Up

The Roll-Up feature can be found after clicking the Filter button in any database (its location is shown in the picture above). Roll-Ups group a particular column that you choose and then pull every item related to that particular group into the group. For example: let's say we wanted to see how many calls were handled in May of 2014. Under Sort and Roll-Up, check "Roll-Ups & Drill-Downs." For "Group By," you can choose any column that's in the database, so I'm picking *Date*. After choosing a group, a new field, "Based On," may appear. For Date, my options are *blank* (does nothing useful), *Day, Month,* and *Year*. Next, under "Roll-Up," I can pick any of the columns once again, so I'll pick *Calls Handled*. For Function, I'm going to pick *Sum*, since it'll add the number of calls in that month together and give me the figure I need for May. Once that's all done, click Apply. We now have a view that groups together CallsHandled data by year.







Date ⊕ ≔			Ð≡	CallsHandled ⊕ ∷	
1	≣	<i>"</i> ○) 2013/02		2,415	
2	≔	<i>"</i> ○) 2013/03		5,582	
3	≣	<i>"</i> ○) 2013/04		8,933	
4	≣	, ○) 2013/05		10,289	
5	≔	△ ≥013/06		10,829	
6	≔	△ ≥013/07		13,381	
7	≣	<i>"</i> ○) 2013/08		12,395	
8	≣	⊘ ≥013/09		10,956	
9	≣	<i>"</i> ○) 2013/10		11,647	
10	≣	(A) 2013/11		10,437	
11	≣	, ○) 2013/12		10,686	
12	≔	<i>"</i> ○) ≥014/01		13,819	
13	≣	<i>"</i> ○ ▶ 2014/02		13,556	
14	≔	<i>"</i> ○) 2014/03		10,089	
15	≔	<i>"</i> ○) ≥014/04		17,215	
16	≔	<i>"</i> ○) 2014/05		15,108	
17	≔	<i>"</i> ○ ▶ 2014/06		13,579	
18	≔	<i>"</i> ○) 2014/07		14,522	

What we have now is a count of Calls Handled for each month since this database was created. If you've noticed how there are only 2 columns displayed now rather than the many that were once showing, that's because I didn't ask for more; if you look back at the Sort and Roll-Up field, you'll see the "Add Roll-Up Column" button. If I wanted to see Calls Handled vs some other type of counting data, such as Calls Abandoned, I could add that with the same Sum function and get a comparison month-to-month.



Conditional Formatting

Conditional Formatting is a good way to highlight data you're looking for rather than hiding information you're not as concerned about. A Rule is the collection of Description and Condition, but a Rule can have as many Conditions as deemed necessarily. You can also have multiple Rules. The Description field is good for letting others know what your purpose for formatting was. The meat of this function is color: based on conditions we set, certain parts of the dataset will be highlighted. A Condition defines what column we're focusing on, what operator we want, and what values we're benchmarking.

This should be enough to get you started on data analysis in the Open Data Portal; there's a lot more you can do than what we've shown you here. If you're unsure of how to use the Data Portal's other features, such as graphing, you can go to Socrata's help site and learn how to use other functions. Here's the link you'll need: https://support.socrata.com/hc/en-us

Good luck!

